

COUNTRY INDICATORS AND SDGS



TOTAL ENERGY SUPPLY (TES)

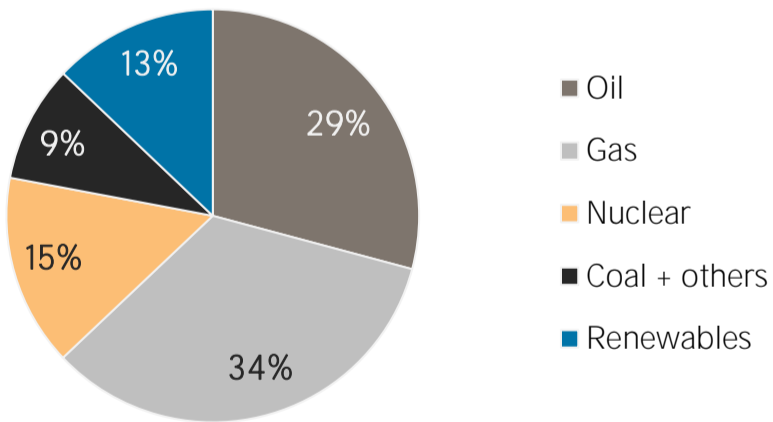
Total Energy Supply (TES)	2016	2021
Non-renewable (TJ)	937 067	1 003 615
Renewable (TJ)	132 761	148 582
Total (TJ)	1 069 828	1 152 197
Renewable share (%)	12	13

Growth in TES	2016-21	2020-21
Non-renewable (%)	+7.1	+3.8
Renewable (%)	+11.9	+8.6
Total (%)	+7.7	+4.4

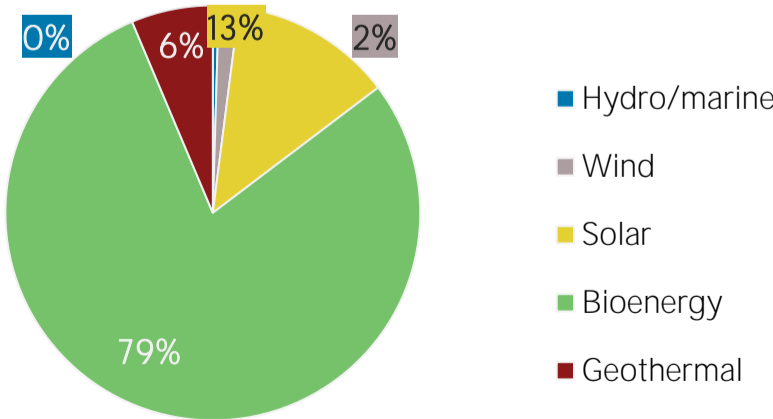
Primary energy trade	2016	2021
Imports (TJ)	812 870	799 566
Exports (TJ)	213 375	176 768
Net trade (TJ)	- 599 495	- 622 798

Imports (% of supply)	76	69
Exports (% of production)	45	39
Energy self-sufficiency (%)	45	39

Total energy supply in 2021

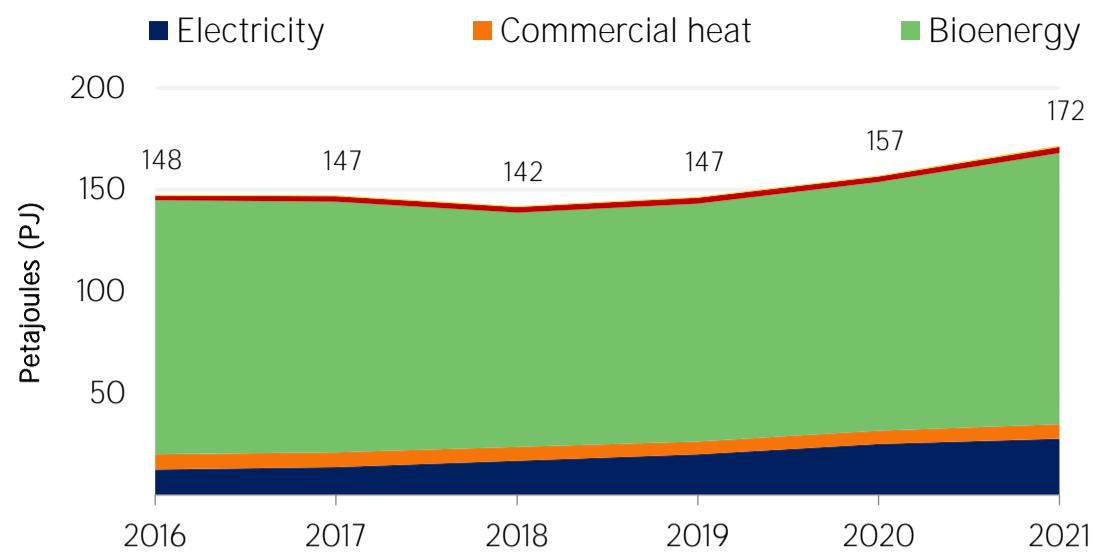


Renewable energy supply in 2021



RENEWABLE ENERGY CONSUMPTION (TFEC)

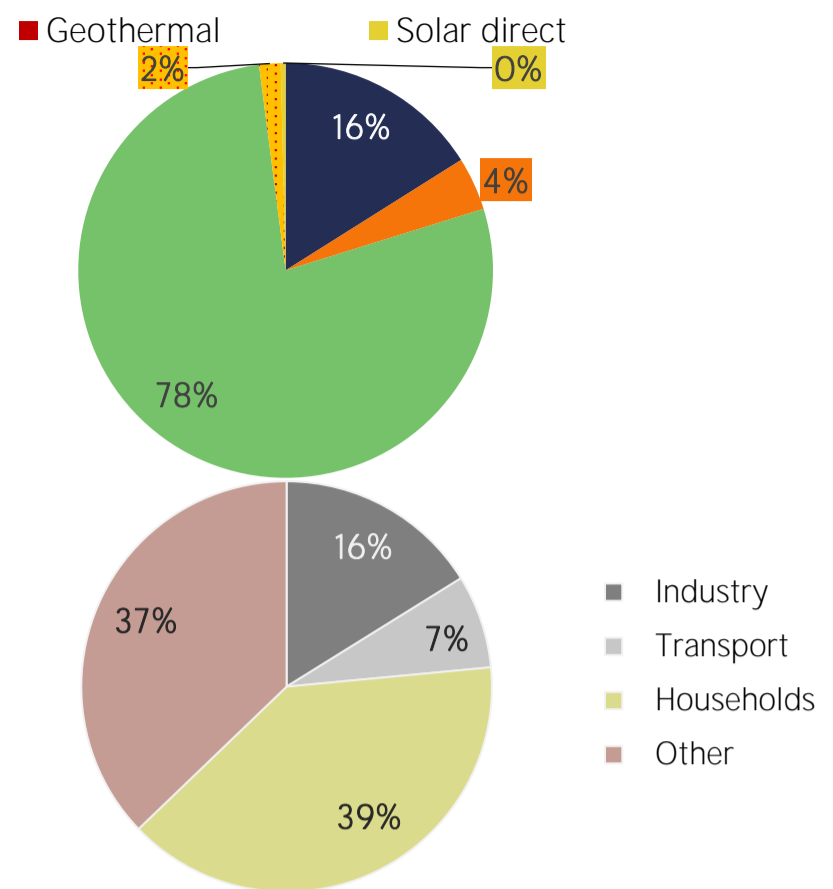
Renewable TFEC trend



Consumption by sector

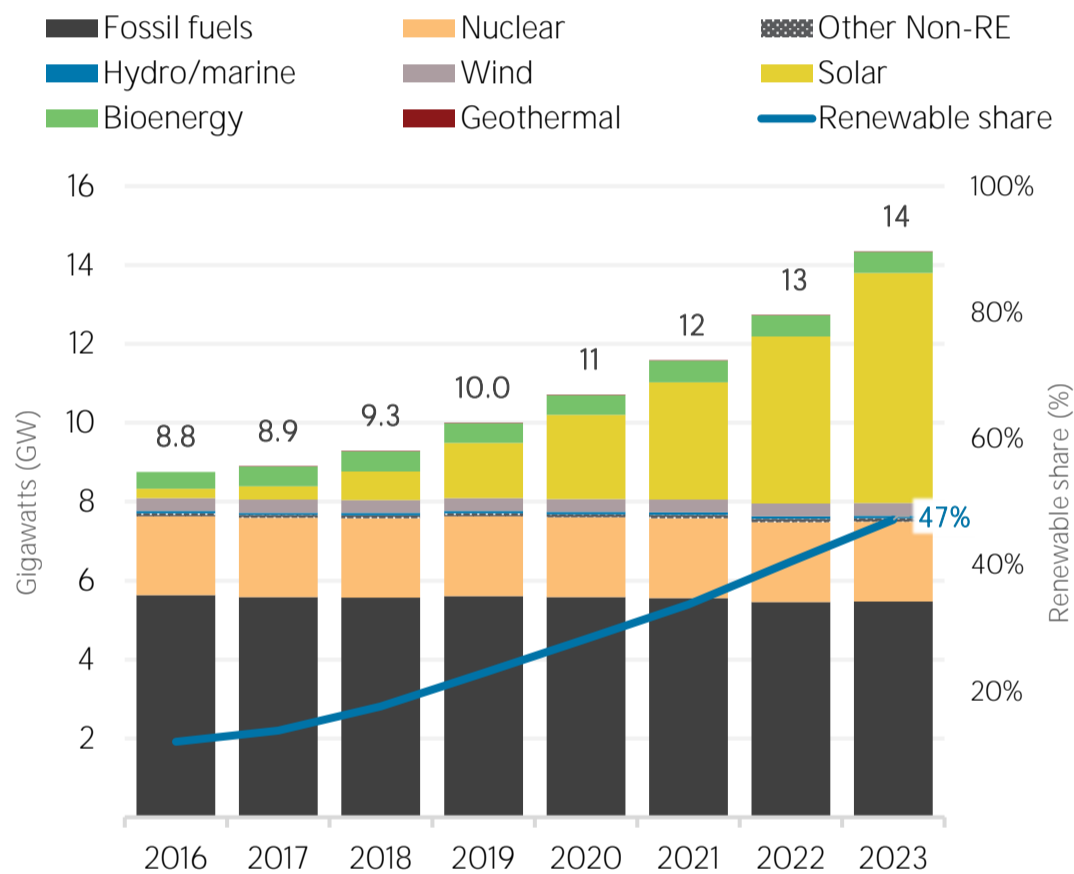
	2016	2021
Industry (TJ)	14 061	27 735
Transport (TJ)	8 134	12 616
Households (TJ)	79 468	67 522
Other (TJ)	45 904	63 850

Renewable energy consumption in 2021

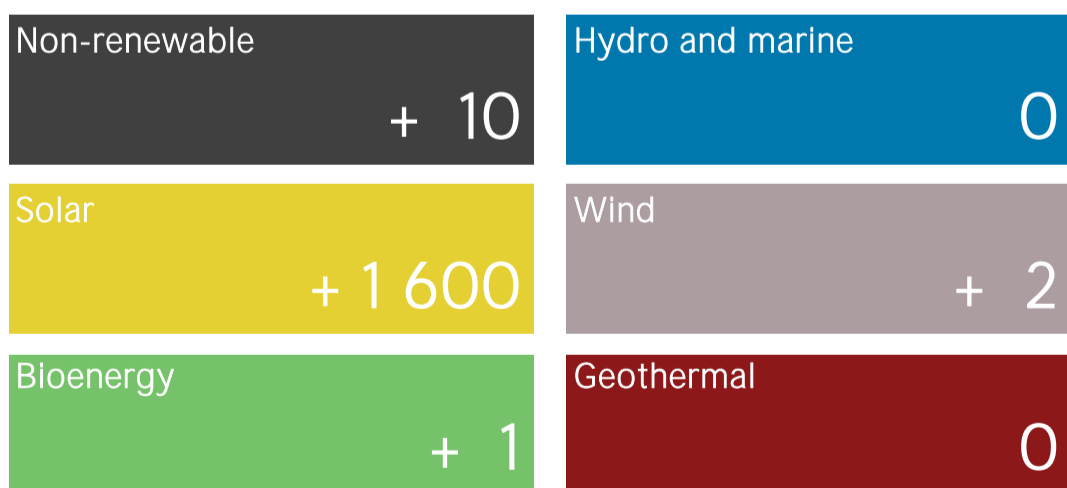


ELECTRICITY CAPACITY

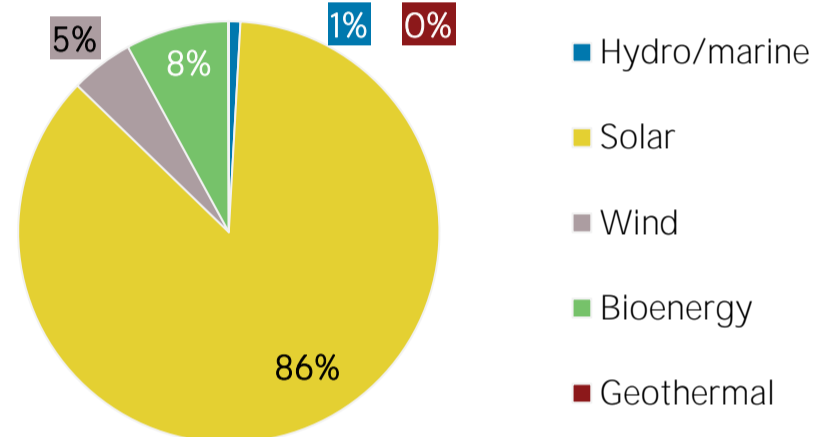
Installed capacity trend



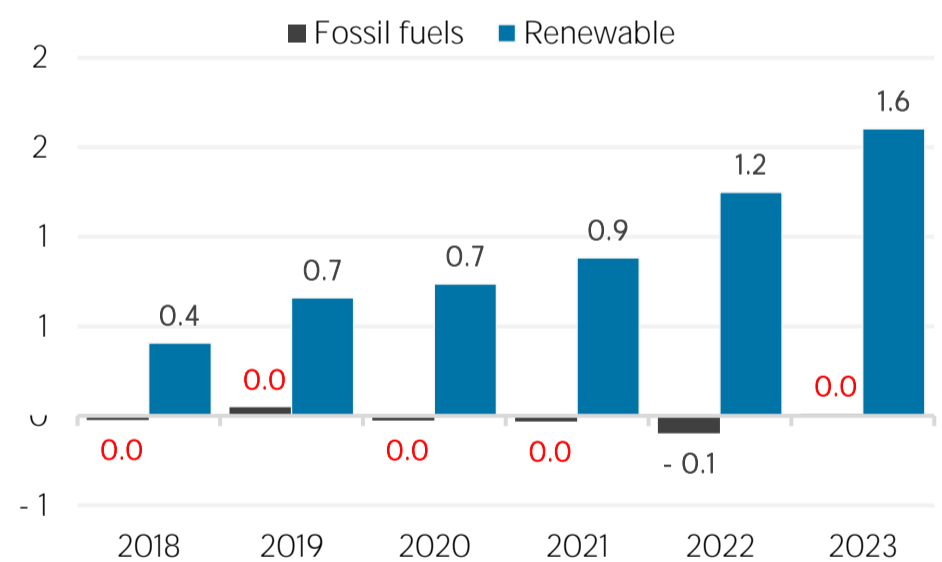
Net capacity change in 2023 (MW)



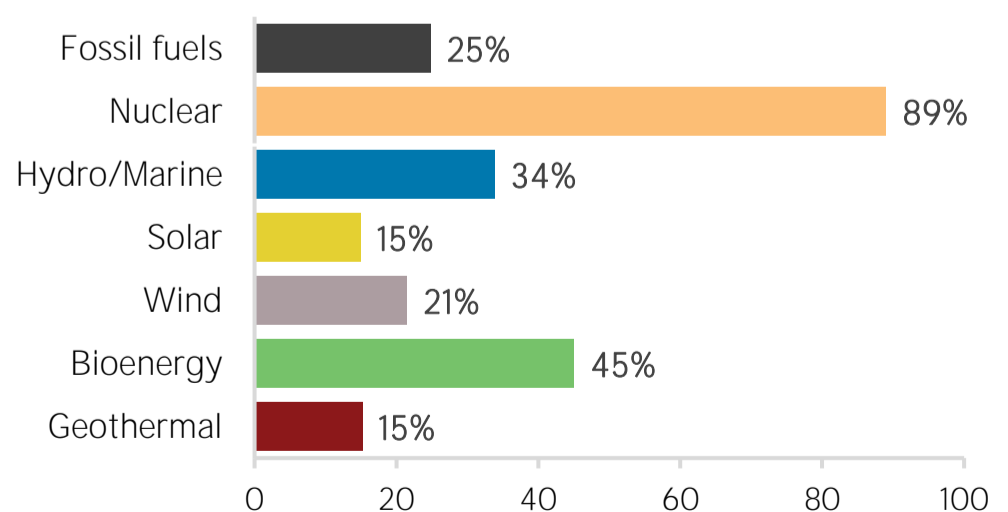
Renewable capacity in 2023



Net capacity change (GW)



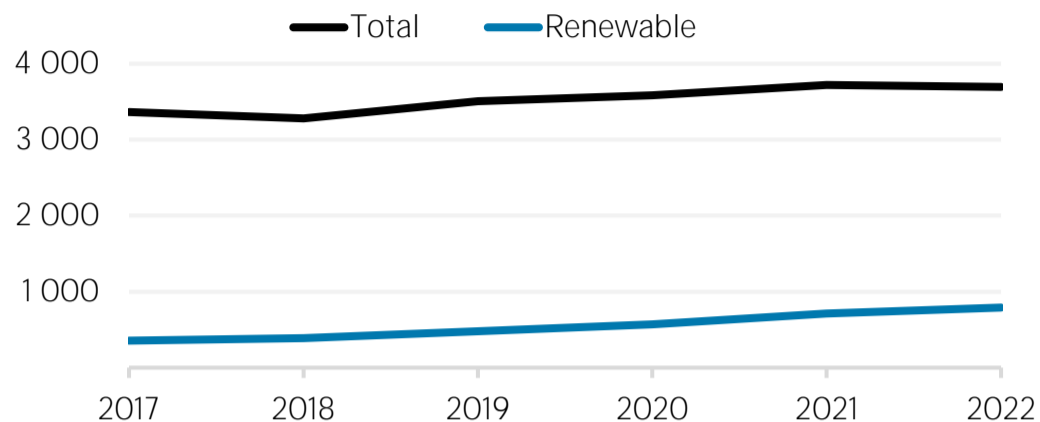
Capacity utilisation in 2022 (%)



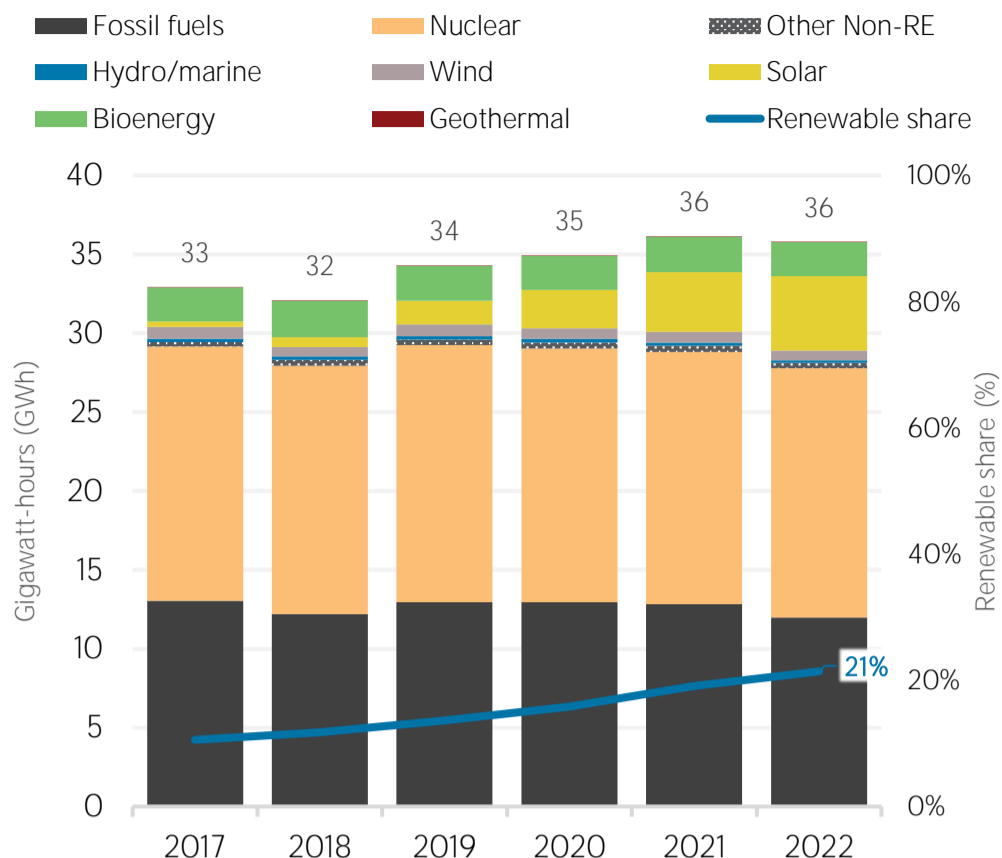
ELECTRICITY GENERATION

Generation in 2022	GWh	%
Non-renewable	28 113	79
Renewable	7 662	21
Hydro and marine	178	0
Solar	4 732	13
Wind	610	2
Bioenergy	2 138	6
Geothermal	4	0
Total	35 775	100

Per capita electricity generation (kWh)



Electricity generation trend

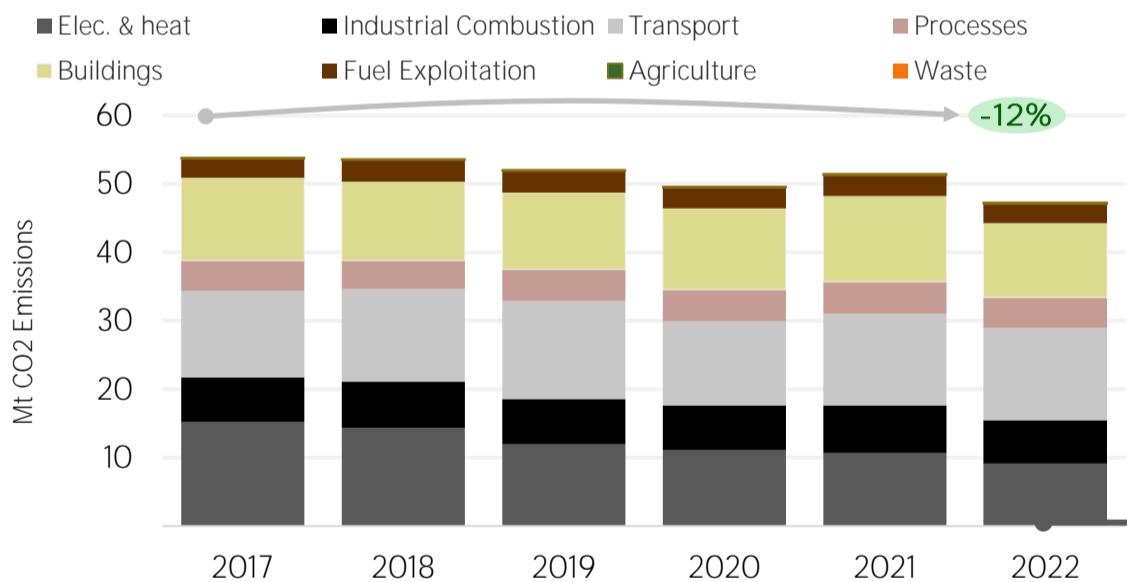


LATEST POLICIES, PROGRAMMES AND LEGISLATION

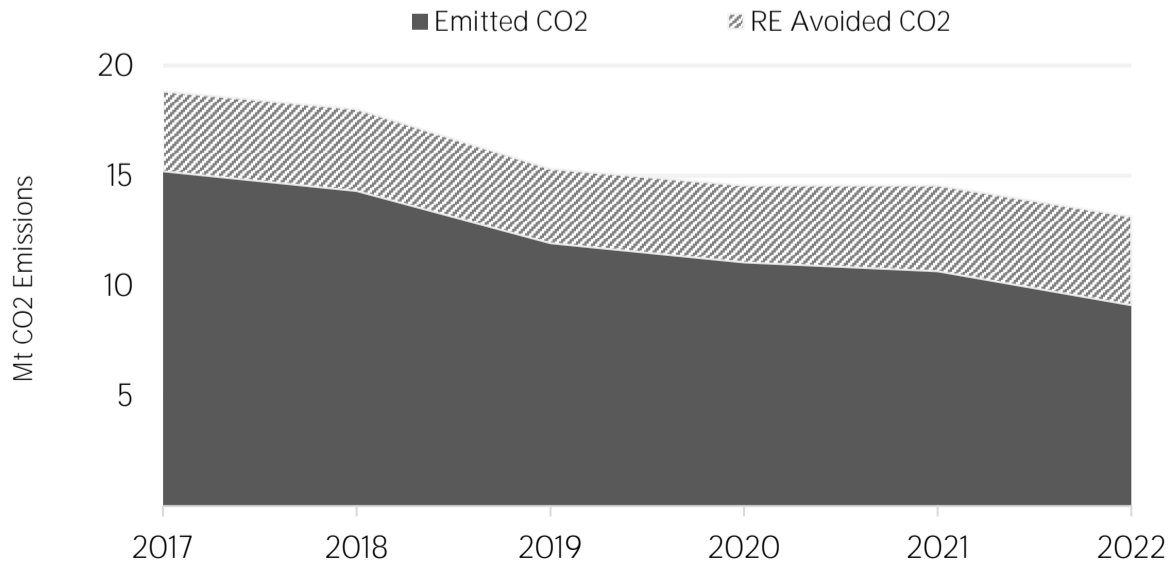
- 1 EUR 109.6 million to pay municipal energy bills 2023
- 2 Fixed price of natural gas and electricity for public sector 2023
- 3 HUF 100 billion investment loan program for renewables and energy efficiency 2023
- 4 HUF 5 billion in fuel subsidies for municipal residents 2023
- 5 Support for energy intensive SMEs extended to 2023 2023

ENERGY AND EMISSIONS

CO₂ emissions by sector

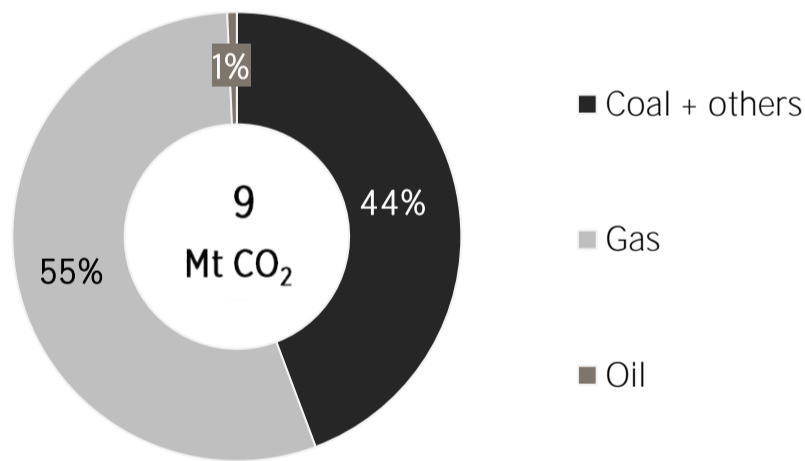


Avoided emissions from renewable elec. & heat

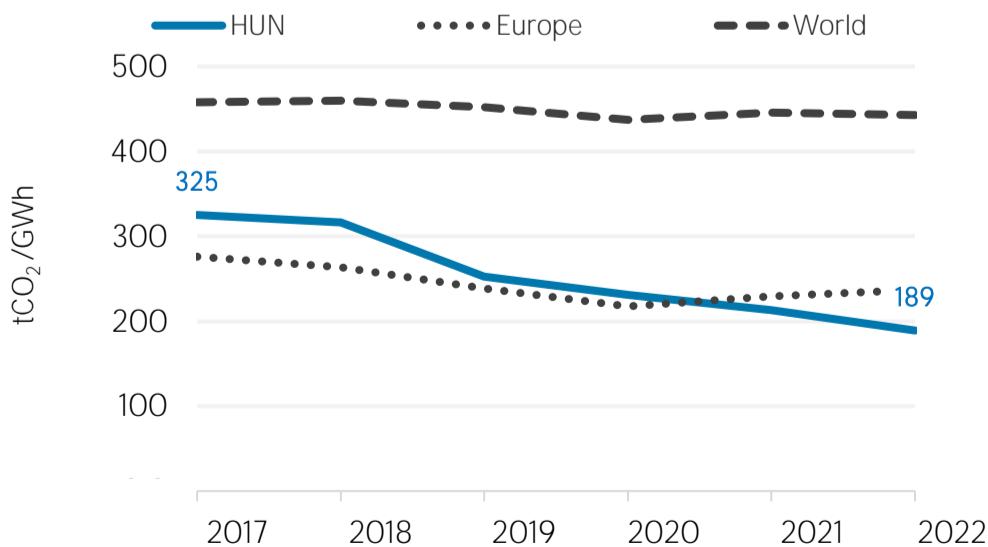


Avoided emissions based on fossil fuel mix used for power

Elec. & heat generation CO₂ emissions in

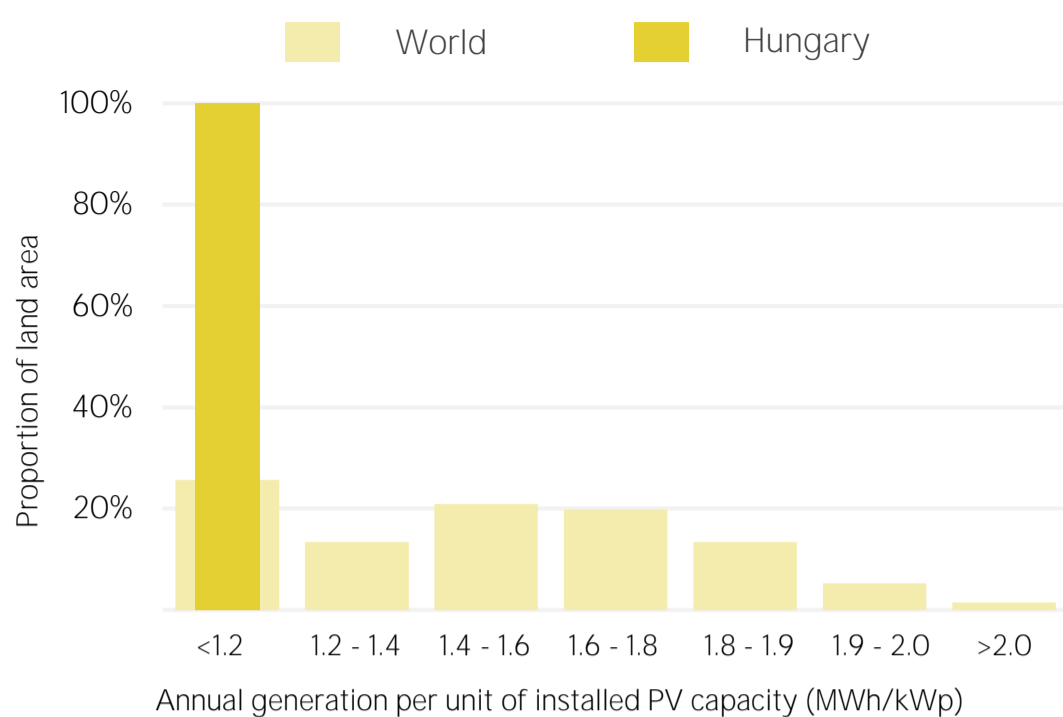


CO₂ emission factor for elec. & heat generation

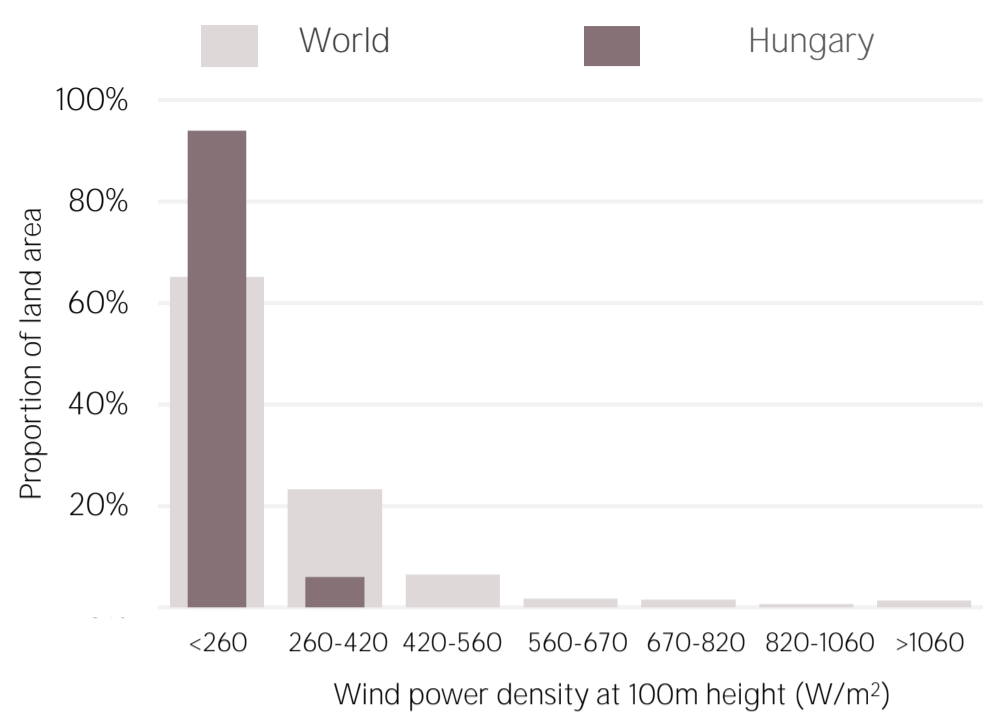


Calculated by dividing power sector emissions by elec. + heat gen.

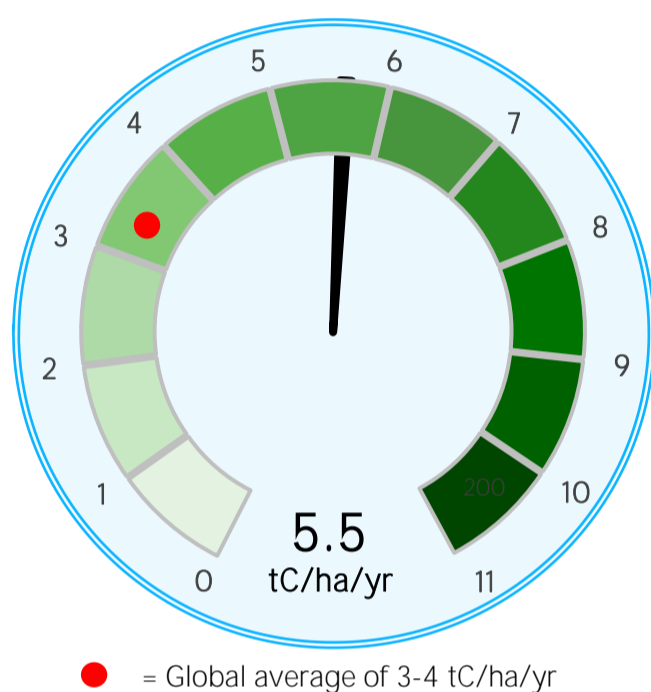
Distribution of solar potential



Distribution of wind potential



Biomass potential: net primary production



Indicators of renewable resource potential

Solar PV: Solar resource potential has been divided into seven classes, each representing a range of annual PV output per unit of capacity (kWh/kWp/yr). The bar chart shows the proportion of a country's land area in each of these classes and the global distribution of land area across the classes (for comparison).

Onshore wind: Potential wind power density (W/m²) is shown in the seven classes used by NREL, measured at a height of 100m. The bar chart shows the distribution of the country's land area in each of these classes compared to the global distribution of wind resources. Areas in the third class or above are considered to be a good wind resource.

Biomass: Net primary production (NPP) is the amount of carbon fixed by plants and accumulated as biomass each year. It is a basic measure of biomass productivity. The chart shows the average NPP in the country (tC/ha/yr), compared to the global average NPP of 3-4 tonnes of carbon

Sources: IRENA statistics, plus data from the following sources: UN SDG Database (original sources: WHO; World Bank; IEA; IRENA; and UNSD); UN World Population Prospects; UNSD Energy Balances; UN COMTRADE; World Bank World Development Indicators; EDGAR; REN21 Global Status Report; IEA-IRENA Joint Policies and Measures Database; IRENA Global Atlas; and World Bank Global Solar Atlas and Global Wind Atlas.

Additional notes: Capacity per capita and public investments SDGs only apply to developing areas. Energy self-sufficiency has been defined as total primary energy production divided by total primary energy supply. Energy trade includes all commodities in Chapter 27 of the Harmonised System (HS). Capacity utilisation is calculated as annual generation divided by year-end capacity x 8,760h/year. Avoided emissions from renewable power is calculated as renewable generation divided by fossil fuel generation multiplied by reported emissions from the power sector. This assumes that, if renewable power did not exist, fossil fuels would be used in its place to generate the same amount of power and using the same mix of fossil fuels. In countries and years where no fossil fuel generation occurs, an average fossil fuel emission factor has been used to calculate the avoided emissions.

These profiles have been produced to provide an overview of developments in renewable energy in different countries and areas. The IRENA statistics team would welcome comments and feedback on its structure and content, which can be sent to statistics@irena.org.

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